

## IN THE CLAIMS

This listing of claims replaces all prior listings:

1. (currently amended) A method in a data processing system having a client and a server, the method for remote processing at the client, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component,

receiving from the server a request to execute the first component;

initiating execution of the first component based on the received request;

after initiating execution of the first component, instructing the server to initiate execution of the second component;

receiving a completion indicator from the server indicating that the second component has terminated execution; and

automatically terminating execution of the first component module responsive to receipt of the completion indicator.

2. (original) The method of claim 1, further comprising the steps of:

receiving a user command to execute the service application; and

requesting the server to send the request to execute the first component.

3. (original) The method of claim 1, wherein the server request includes an identifier of the second component of the service application.

4. (original) The method of claim 1, further comprising the steps of:

determining whether the first component and the second component are available for execution.

5. (original) The method of claim 1, wherein:

the request to execute the first component is included in a web page with a URL identifying the second component,

the server is instructed to initiate execution of the second component by returning the URL to the server, and

the received completion indicator from the server is included in a response to the returned URL from the client.

6. (original) The method of claim 1, wherein the server is a web server.

7. (original) The method of claim 1, wherein the first component comprises one of a plug-in and an applet, which is executed by loading a web page in a browser application executed at the client; and wherein the second component comprises a servlet scripted at the server.

8. (original) The method of claim 1, wherein the service application comprises at least one application selected from the group consisting of a print operation, a visualization operation, a storing operation a rendering operation, a mathematical operation, and a logical operation.

9. (currently amended) A method in a data processing system having a client and a server, the method for remote processing at the client, the client having a first component of a service application, a web server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component,

receiving from the server a web page with a request to execute the first component, the web page including a URL identifying the second component;

initiating execution of the first component based on the received request;

after initiating execution of the first component, instructing the server to initiate execution of the second component by returning the URL to the server;

receiving a completion indicator from the server indicating that the second component has terminated execution; and

automatically terminating execution of the first component responsive to receipt of the completion indicator.

10. (currently amended) A method in a data processing system having a client and a server, the method for remote processing at the server, the client having a first component of a service application, a server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component,

requesting the client to initiate execution of the first component and to return a client request to the server to initiate execution of the second component;

receiving the request to initiate execution of the second component;

initiating execution of the second component based on the received client request;

determining when the second component has terminated execution; and

when it is determined that the second component has terminated execution, sending an indication to the client that the second component has terminated execution to notify the client to automatically terminate execution of the first component.

11. (original) The method of claim 10, further comprising the step of:

receiving a further client request instructing the server to request the client to initiate execution of the first component.

12. (original) The method of claim 10, wherein the request to the client to initiate execution of the first component includes an identifier of the second component.

13. (original) The method of claim 10, further comprising the step of:  
determining whether the first component and the second component are available for execution.

14. (original) The method of claim 10, wherein:  
the request to initiate execution of the first component is included in a web page with a URL identifying the second component;  
receiving the URL with the client request instructing the server to initiate execution of the second component; and  
the client is notified with the completion indicator in a response to the client request having the URL.

15. (original) The method of claim 10, wherein the server is a web server.

16. (original) The method of claim 10, wherein the first component comprises one of a plug-in and an applet, which is executed by loading a web page in a browser application executed at the client; and wherein the second component comprises a servlet scripted at the server.

17. (original) The method of claim 10, wherein the service application comprises at least one application selected from the group consisting of a print operation, a visualization operation, a storing operation a rendering operation, a mathematical operation, and a logical operation.

18. (currently amended) A method in a data processing system having a client and a server, the method for remote processing at the server, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;  
determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component.

requesting the client to initiate execution of the first component and to return a client request to the server to initiate execution of the second component, the request to initiate execution of the first component contained in a web page having a URL identifying the second component;

receiving the client request to initiate execution of the second component, the client request including the URL;

initiating execution of the second component based on the received client request;

determining when the second component has terminated execution; and

when it is determined that the second component has terminated execution, sending an indication to the client that the second component has terminated execution to notify the client to automatically terminate execution of the first component.

19. (currently amended) A computer-readable medium containing instructions that cause a data processing system having a client and a server to perform a method for remote processing at the client, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component.

receiving from the server a request to execute the first component;

initiating execution of the first component based on the received request;

after initiating execution of the first component, instructing the server to initiate execution of the second component;

receiving a completion indicator from the server indicating that the second component has terminated execution; and

automatically terminating execution of the first component responsive to receipt of the completion indicator.

20. (original) The computer-readable medium of claim 19, further comprising the steps of:

receiving a user command to execute the service application; and  
requesting the server to send the request to execute the first component.

21. (original) The computer-readable medium of claim 19, wherein the request to execute the first component includes an identifier of the second component of the service application.

22. (original) The computer-readable medium of claim 19, further comprising the steps of:

determining whether the first component and the second component are available for execution.

23. (original) The computer-readable medium of claim 19, wherein:  
the request to execute the first component is included in a web page with a URL identifying the second component,  
the server is instructed to initiate execution of the second component by returning the URL to the server, and  
the received completion indicator from the server is included in a response to the returned URL from the client.

24. (original) The computer-readable medium of claim 19, wherein the server is a web server.

25. (original) The computer-readable medium of claim 19, wherein the first component comprises one of a plug-in and an applet, which is executed by loading a web page in a browser application executed at the client; and wherein the second component comprises a servlet scripted at the server.

26. (original) The computer-readable medium of claim 19, wherein the service application comprises at least one application selected from the group consisting of a print operation, a visualization operation, a storing operation a rendering operation, a mathematical operation, and a logical operation.

27. (currently amended) A computer-readable medium containing instructions that cause a data processing system having a client and a server to perform a method for remote processing at the client, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component,

receiving from the server a web page with a request to execute the first component, the web page including a URL identifying the second component,;

initiating execution of the first component based on the received request,;

after initiating execution of the first component, instructing the server to initiate execution of the second component by returning the URL to the server,;

receiving a completion indicator from the server indicating that the second component has terminated execution,; and

automatically terminating execution of the first module responsive to receipt of the completion indicator.

28. (currently amended) A computer-readable medium containing instructions that cause a data processing system having a client and a server to perform a method for remote processing at the server, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component

requesting the client to initiate execution of the first component and to return a client request to the server to initiate execution of the second component;

receiving the client request to initiate execution of the second component;

initiating execution of the second component based on the received client request;

determining when the second component has terminated execution; and

when it is determined that the second component has terminated execution, sending an indication to the client that the second component has terminated execution to notify the client to automatically terminate execution of the first component.

29. (original) The computer-readable medium of claim 28, further comprising the step of:

receiving a second client request instructing the server to request the client to initiate execution of the first component.

30. (original) The computer-readable medium of claim 28, wherein the request to the client to initiate execution of the first component includes an identifier of the second component.

31. (original) The computer-readable medium of claim 28, further comprising the step of:

determining whether the first component and the second component are available for execution.

32. (original) The computer-readable medium of claim 28, wherein:

the request to execute the first component is included in a web page with a URL identifying the second component;

receiving the URL with the client request instructing the server to initiate execution of the second component; and

the client is notified with the completion indicator in a response to the client request having the URL.



33. (original) The computer-readable medium of claim 28, wherein the server is a web server.

34. (original) The computer-readable medium of claim 28, wherein the first component comprises one of a plug-in and an applet, which is executed by loading a web page in a browser application executed at the client; and wherein the second component comprises a servlet scripted at the server.

35. (original) The computer-readable medium of claim 28, wherein the service application comprises at least one application selected from the group consisting of a print operation, a visualization operation, a storing operation a rendering operation, a mathematical operation, and a logical operation.

36. (currently amended) A computer-readable medium containing instructions that cause a data processing system having a client and a server to perform a method for remote processing at the server, the client having a first component of a service application, the server having a second component of the service application, the method comprising the steps of:

receiving a user command to execute the service application;

determining whether the service application includes the first component and the second component; and

when it is determined that the service application includes the first component and the second component,

requesting the client to initiate execution of the first component and to return a client request to the server to initiate execution of the second component, the request to initiate execution of the first component contained in a web page having a URL identifying the second module;<sup>‡</sup>

receiving the client request to initiate execution of the second component, the client request including the URL;<sup>‡</sup>

initiating execution of the second component based on the received client request;<sup>‡</sup>

determining when the second component has terminated execution;<sup>‡</sup> and

when it is determined that the second component has terminated execution, sending an indication to the client that the second component has terminated execution to notify the client to automatically terminate execution of the first component.

37. (currently amended) A client data processing system comprising:

a memory comprising a service application with a first component and a second component, and a computer program that

receives a user command to execute the service application;

determines whether the service application includes the first component and the second component, and

when it is determined that the service application includes the first component and the second component,

receives from a server a request to execute the first component,

initiates execution of the first component based on the received request,

instructs the server to initiate execution of the second component of the service application program located at the server after initiating execution of the first component,

receives a completion indicator from the server indicating that the second component has terminated execution, and

automatically terminates execution of the first component responsive to receipt of the completion indicator; and

a processing unit that runs the computer program.

38. (original) The data processing system of claim 37, wherein:

the request to initiate execution of the first component is included in a web page with a URL identifying the second component,

the server is instructed to initiate execution of the second component by returning the URL to the server, and

the received completion indicator from the server is included in a response to the returned URL from the client.

39. (original) The data processing system of claim 37, wherein the server is a web server.

40. (currently amended) A client data processing system comprising:

a memory comprising a service application with a first component and a second component, and a computer program that

receives a user command to execute the service application,

determines whether the service application includes the first component and the second component, and

when it is determined that the service application includes the first component and the second component,

receives from a server a web page with a request to execute the first component, the web page including a URL identifying the second module of the service application program located at the server,

initiates execution of the first component based on the received request,

after initiating execution of the first component, instructs the server to initiate execution of the second component by returning the URL to the server,

receives a completion indicator from the server indicating that the second component has terminated execution, and

automatically terminates execution of the first component upon receipt of the completion indicator; and

a processing unit that runs the computer program.

41. (currently amended) A server data processing system comprising:

a memory comprising a service application having a first component and a second component, and a computer program that

receives a user command to execute the service application,

determines whether the service application includes the first component and the second component, and

when it is determined that the service application includes the first component and the second component,

requests a client to initiate execution of the first component of the service application program located at the client and to return a client request to initiate execution of the second component,

receives the client request to initiate execution of the second component,  
initiates execution of the second component based on the received client  
request,

determines when the second component has terminated execution, and  
when it is determined that the second component has terminated  
execution, sends an indication to the client that the second component has terminated execution  
to notify the client to automatically terminate execution of the first component; and  
a processing unit that runs the computer program.

42. (original) The data processing system of claim 41, wherein:  
the request to initiate execution of the first component is included in a web page with a  
URL identifying the second component;  
receiving the URL with the client request instructing the server to initiate execution of the  
second component; and  
the client is notified with the completion indicator in a response to the client request  
having the URL.

43. (original) The data processing system of claim 41, wherein the server is a web  
server.

44. (currently amended) A server data processing system comprising:  
a memory comprising a service application having a first component and a second  
component, and a computer program that  
receives a user command to execute the service application,  
determines whether the service application includes the first component and the  
second component, and  
when it is determined that the service application includes the first component and  
the second component,

requests a client to initiate execution of a first component of the service  
application program located at the client and to return a client request to initiate execution of the  
second component, the request contained in a web page having a URL identifying the second  
component;

receives the client request to initiate execution of the second module, the client request including the URL;

initiates execution of the second module based on the received client request,

determines when the second component has terminated execution, and when it is determined that the second component has terminated execution, sends an indication to the client that the second component has terminated execution to notify the client to automatically terminate execution of the first component; and a processing unit that runs the computer program.

45. (currently amended) A data processing system having a client and a server, the data processing system for remote processing at the client, the client having a first component of a service application, the server having a second component of the service application, the data processing system comprising:

means for receiving a user command to execute the service application;

means for determining whether the service application includes the first component and the second component; and

means for, when it is determined that the service application includes the first component and the second component,

~~means for~~ receiving from the server a request to execute the first component;

~~means for~~ initiating execution of the first component based on the received request;

~~means for,~~ after initiating execution of the first component, instructing the server to initiate execution of the second component;

~~means for~~ receiving a completion indicator from the server indicating that the second component has terminated execution; and

~~means for~~ automatically terminating execution of the first component responsive to receipt of the completion indicator.

46-48. (canceled).